

the optical head being able to be envisaged independently of the scanning means; moreover the head can be miniaturized, which is advantageous in endoscopy and also, in a general way, for increasing the precision of positioning;

-an image guide made of flexible optical fibres, serves as an access arm to the site to be observed, which is important for an *in situ* application.--

21 Please replace the paragraph beginning at page 5, lines 11-20, with the following rewritten paragraph:

*SM
7/11/08*

--The present invention proposes a solution for realizing an ~~in vivo in situ~~ *in vivo* and *in situ* image in real time, whether for a method with or without focusing on the exit of the fibre. The invention is based on respecting the sampling of the fibres (according to Shannon's criterion) which makes it possible to obtain an image reconstructed point by point which effectively corresponds to each fibre. This avoids loss of information when sampling all of the fibres one by one while still maintaining a minimum average number of images per second, i.e. in practice at least 12 images per second for a maximum mode of 640 x 640 pixels. The choice of detection frequency (pass-band of the detector) as a function of this minimum sampling then allows the detection, for each fibre, of the greatest possible number of fluorescence photons.--